

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1 1. (~~Currently amended~~) ~~An overlay routing processor for transferring information~~
2 ~~over a computer network, wherein the computer network has a native routing~~
3 ~~protocol, the overlay routing processor comprising:~~
4 A method comprising performing a machine-executed operation involving
5 instructions, wherein the machine-executed operation is at least one of:
6 A) sending said instructions over transmission media;
7 B) receiving said instructions over transmission media;
8 C) storing said instructions onto a machine-readable storage medium; and
9 D) executing the instructions,
10 wherein said instructions are instructions which, when executed by one or more
11 processors, cause:
12 ~~instructions for associating computer on the computer network with a~~
13 ~~given overlay group;~~
14 receiving a signal, originating from a sender, which indicates an intention
15 of the sender to send packets to an overlay group that includes a set
16 of computers;
17 determining whether the sender has permission to send packets to the
18 overlay group;
19 if the sender has permission to send packets to the overlay group, then
20 performing the steps of:
21 ~~instructions for determining whether received information a~~
22 received packet, from the sender, is associated with the
23 given overlay group;
24 ~~instructions for determining, for each computer associated with the~~
25 overlay group, whether to send the received packet to a
26 particular the computer, in the set of computers, via a
27 multicast connection or a unicast connection based, at least

28 ~~in part, on data indicating is to be transferred the~~
29 ~~information using multicasts or unicasting based on a~~
30 ~~request from the computer indicating a transport preference~~
31 ~~of the particular computer;~~
32 ~~instructions for upon determining that the received packet should~~
33 ~~be sent to the particular computer via the multicast~~
34 ~~connection, routing the received information packet to the~~
35 ~~computers particular computer having requested a multicast~~
36 ~~connection using the a native routing protocol to provide~~
37 ~~the information send the received packet by multicasting;~~
38 ~~and~~
39 ~~instructions for upon determining that the received packet should~~
40 ~~be sent to the particular computer via the unicast~~
41 ~~connection, routing the received information packet to the~~
42 ~~computers particular computer having requested a unicast~~
43 ~~connection using the native routing protocol to provide the~~
44 ~~information send the received packet by unicasting.~~

1 2-9. (Cancelled).

1 10. (Currently amended) The ~~overlay routing processor method~~ of claim 1, ~~further~~
2 ~~comprising instructions for wherein said instructions, when executed by the one or~~
3 ~~more processors, further cause:~~
4 ~~handling administrative scoping preventing a multicast packet to be blocked at a~~
5 ~~boundary point, wherein the multicast packet has a network address within~~
6 ~~a specified range of network addresses.~~

1 11. (Currently amended) The ~~overlay routing processor method~~ of claim 1, ~~further~~
2 ~~comprising instructions for wherein said instructions, when executed by the one or~~
3 ~~more processors, further cause:~~
4 ~~in response to detecting that an amount of available bandwidth on a network is~~
5 ~~below a threshold, servicing a plugin modules module thinning a packet~~

6 stream, wherein said received packet is part of said packet stream.

1 12. (Currently amended) The ~~overlay routing processor~~ method of claim 1, ~~further~~
2 ~~comprising instructions for~~ wherein said instructions, when executed by the one or
3 more processors, further cause:
4 placing a limit on the number of transfers between computers for a given ~~portion~~
5 of information packet.

1 13. (Currently amended) The ~~overlay routing processor~~ method of claim 12, ~~wherein~~
2 ~~information is transferred between the computers in packets, the overlay routing~~
3 ~~processor further comprising instructions for~~ wherein said instructions, when
4 executed by the one or more processors, further cause:
5 placing a "time-to-live" value in a field ~~in a~~ of said received packet.

1 14. (Currently amended) The ~~overlay routing processor~~ method of claim 1, ~~further~~
2 ~~comprising instructions for~~ wherein said instructions, when executed by the one or
3 more processors, further cause:
4 preventing the transfer ~~of information~~ of packets between predetermined
5 computers.

1 15. (Currently amended) The ~~overlay routing processor~~ method of claim 14, ~~wherein~~
2 said instructions, when executed by the one or more processors, further cause:
3 storing one or more addresses that each identify a computer, and
4 wherein the step of preventing the transfer of packets includes using the one or
5 more addresses to prevent the transfer of packets to any computer
6 identified by the one or more addresses.
7 ~~wherein one or more computers are identified by an address, the overlay routing~~
8 ~~processor further comprising using the address to prevent the transfer of~~
9 ~~information between predetermined computers~~

1 16-23 (Withdrawn).

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